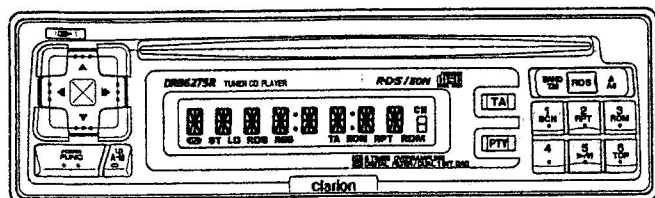


# clarion Service Manual

Published by Service Dept.



## FM/MW/LW Radio CD Combination with RDS-EON

Model **DRB6275R**

(PE-2201E-A / Illumination:Amber)  
(PE-2201E-B / Illumination:Green)

## SPECIFICATIONS

### Radio section

Tuning system: PLL synthesizer  
Receiving frequencies:  
FM 87.5 to 108MHz  
MW 531 to 1,602kHz  
LW 153 to 279kHz

### CD section

System: Compact disc audio  
Sampling frequency: 44.1kHz  
Oversampling: 8times  
Converters: Dual 1-bit digital/analog converters  
Frequency response: 20 to 20,000Hz(±1dB)  
Dynamic range: 95dB(1kHz)  
S/N ratio: 96dB(1kHz)HF-A  
Distortion: 0.01%

### General

Power supply voltage: DC14V(10.8 to 15.6V allowable)  
Negative ground  
Power consumption: Less than 10A  
Speaker impedance: 4Ω (4 to 8Ω allowable)  
Auto antenna rated current: 350mA or less  
Dimensions: Width 178mm  
Height 50mm  
Depth 152mm  
Weight: 1.6kg

※ For improvement purposes, specifications and design are subject to change without prior notice.

## FEATURES

RDS-EON receiver with PI,PS,AF,TA,PTY,REG and CT  
24 presets(18FM,6MW/LW)  
Dual 1-bit "Bit-stream" D/A converters  
Plays 8cm discs  
High power 30W X 4 max.  
Triggered audio mute for cellular telephone  
Fully detachable control panel

## COMPONENTS

PE-2201E-A/E-B	
Main unit	1
Mounting bracket	300-9035-03 1
Hook plate	330-8216-0L 2
DCP case	335-4848-03 1
Escutcheon	370-9006-22 1
Screw	716-0726-01 1
A-lead	850-6681-00 1

## CAUTIONS

1. This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT".
2. Use of controls or adjustments or performance of procedures other than those specified in the service manual may result in hazardous radiation exposure.
3. Static discharges can destroy expensive component. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).
4. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
5. Use of controls or adjustments or performance of proce-

dures other than those specified herein may result in hazardous radiation exposure. Do not look into the optical lens at anytime.

#### 6. Precautions for servicing the CD player

6-1. When replacing the pickup unit, take a countermeasure for electrostatic destruction (protection with a short pin, etc.) to be careful in handling.

6-2. When disassembling, be sure to turn off the power. Disconnecting a connector during power-on may destroy the internal IC.

#### 7. Precautions for handling the pickup

##### 7-1. Destruction due to surge current or static electricity

If a large current flows to the LD even for a very short period, deterioration is promoted by a strong light emitted by itself, or it is destroyed. See to it that the LD drive circuit will not be exposed to a surge current caused by a switch and others. If you handle it carelessly, it will be destroyed instantaneously by static electricity applied from a human body. The terminals of the LD have been shorted in order to protect them against electrostatic destruction caused by transportation upon shipment. To make safety doubly sure, earth a human body, instruments, and jigs without fail when installing. It is recommended to spread a ground mat on a work bench or the floor for grounding. To open the shorted parts, use a soldering iron after insert-

ing a connector. Use the soldering iron whose metallic part is earthed or whose insulation resistance is 10M ohm or more (500C DC) in 5 minutes after turning on the power, and whose temperature at its tip is 320°C or less (30W), and work quickly. Depending on mechanism, when removing the flexible P.W.B., short it.

##### 7-2. 2-axis block

###### Actuator

The actuator has a powerful magnetic circuit. If a magnetic substance is put close to it, its characteristics will change. Also see to it that no foreign substances will enter through the clearance of the cover.

###### Cleaning the lens

Adherence of dust to the objective reduces performance. To clean the lens, apply a small amount of isopropyl alcohol to lens paper and wipe the lens gently.

##### 7-3. Handling

a) When handling the pickup drive unit, hold the resin mold chassis.

b) Note that if the circuitry of the printed circuit board is directly touched by a hand or other substances, the LD may be deteriorated.

c) If you directly touch the pins of the flexible connector with hand, the LD will be deteriorated. When removing the mechanism from the set, be fully careful in handling.

## DURING REPAIR OR INSPECTION, OBSERVE THE FOLLOWING

#### 1. Use specified parts.

The system uses parts with special safety characteristics against flame and voltage. Use only parts with equivalent characteristics when replacing them.

#### 2. Place the parts and wiring back in their original positions after replacement or re-wiring.

For proper circuit construction, use of insulation tubes, bonding, gaps to P.W.B. etc. is involved. The wiring connection and routing to the P.W.B. are specially devised using clamps to keep away from heated and high-voltage parts. So, make sure to replace them back in their original positions after repair or inspection.

#### 3. Check for safety after repair.

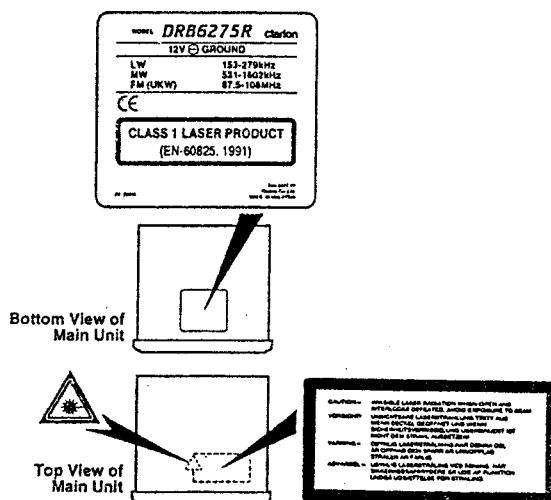
Check that the screws, parts, and wires are put back securely in their original position after repair. And make sure for safety reasons there is no possibility of secondary problems around the repaired spots.

#### 4. Cautions regarding chips.

Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, condensers, diodes, transistors, etc.). The negative pole of tantalum condensers is highly susceptible to heat, so use special care when replacing them, and check operation afterward.

#### 5. Cautions in handling flexible P.W.B.

Before working with a soldering iron, make sure that the iron tip temperature is around 270°C. Take care not to apply the iron tip repeatedly (more than 3 times) to the same patterns. Also take care not to apply the tip with force.



## ERROR DISPLAY

To protect the system, this unit has been equipped with self diagnostic functions. If a fault arises, a warning is issued by various error displays. Follow the corrective measure and remove the fault.

Error display	Corrective measure
E R 2	This error display indicates that a fault has arisen in the mechanism of the main unit (for example, the disc cannot be changed or ejected). → Check the main unit.
E R 3	This error display indicates that the pickup focus is off because of a scratched disc or some other factor during the main unit play. → Check the compact disc.

# EXPLANATION OF IC

μPD78058GC-116-3B9 052-3325-00 RDS Master Micro computer

## Outward Form

80pins plastic QFP

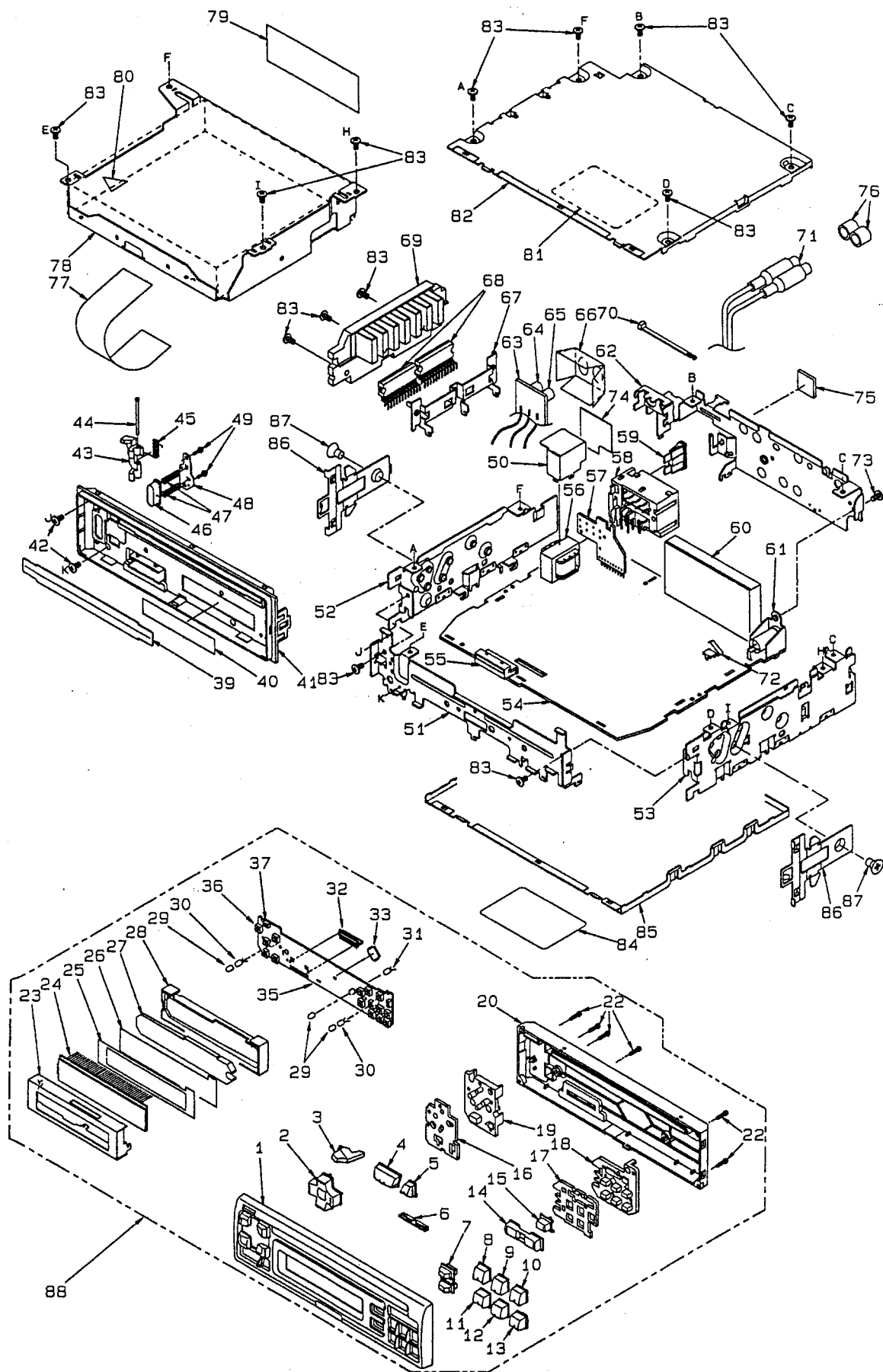
## Terminal Description

Pin No.	Symbol	I/O	Function														
80	TR-A	I	Photo sensor input terminals to mechanism														
1	TR-B		Terminals for disc position detection such as for disc loading, chucking, and other mechanical status.														
2	TR-C		When disk is present, "H" is input. When not present, "L" is input.														
3	CHA SW	I	Chucking SW input terminal This terminal detects disc chucking completion. If disc is loaded and chucking SW turns "ON", "L" is input.														
4	AVss	—	GND terminal for A/D converter														
5	VOL CW	I	Input terminals of rotary SW (OEM specification)														
6	VOL CCW																
7	AVrefI	—	+5V power supply terminals for D/A converter														
8	PLL DI	I	PLL control serial I/O terminals														
9	PLL DO	O															
10	PLL SCK	O															
11	LCD SI	I	LCD control serial I/O terminals														
12	LCD SO	O															
13	LCD SCK	O															
14	LCD CE	O															
15	NC	—	Not in use														
20																	
21	LDON	O	ON/OFF control output terminal of RF amplifier for laser output control "L" : laser "ON"														
22	MCCW	O	Loading motor control terminals Performs disc loading and EJECT operation.														
23	MCW	O															
<table><tr><td></td><td>LOADING</td><td>EJECT</td><td>BRAKE</td><td>STOP</td></tr><tr><td>MCW</td><td>"H"</td><td>"L"</td><td>"H"</td><td>"L"</td></tr><tr><td>MCCW</td><td>"L"</td><td>"H"</td><td>"H"</td><td>"L"</td></tr></table>					LOADING	EJECT	BRAKE	STOP	MCW	"H"	"L"	"H"	"L"	MCCW	"L"	"H"	"H"
	LOADING	EJECT	BRAKE	STOP													
MCW	"H"	"L"	"H"	"L"													
MCCW	"L"	"H"	"H"	"L"													
24	SQCK	O	SUB-Q data readout clock terminal from CXD 2545 Q														
25	XRST	O	Reset output terminal to CXD 2545 Q														
26	CLOCK	O	Clock output terminal for serial data transmission to CXD 2545 Q														
27	XLAT	O	Latch output terminal for serial data to CXD 2545 Q														
28	DATA	O	Serial data output terminal to control CXD 2545 Q														
29	SCLK	O	Clock to readout SENS data from CXD 2545 Q														
30	SQSO	I	Input terminal of SUB-Q data output from CXD 2545 Q														
31	SENS	I	Input terminal of CDIC internal state output from CXD 2545 Q XBUSY : During auto sequencer operation, in average measuring, and auto gain control operation (L) FOK : Focus OK (H) GFS : Replayed frame sink is gained with correct timing. (H) SSTOP : Limit SW ON (H) OV64 : Detection of spindle motor low speed rotation (H)														
32	NC	—	Not in use														
33	Vss	—	GND														
34	NC	—	Not in use														
35	INIT 3	I	Terminal for initialization (for OEM) "L" for rotation VOL & '93 specification "H" for cross key														
36	REM+5	O	Power supply control terminal of microcomputer pull up, LCD driver and PLL IC														
37	CD PWR2	O	CD power 2 control output terminal During CD PLAY, this port turns to "L" and power to CDIC is supplied. When STOP, spindle motor stops and this port turns to "OPEN", then power supply to CDIC turns OFF.														

Pin No.	Symbol	I/O	Function
38	RDS DX	O	DX output terminal for RDS "L" only when RDS DX SEEK
39	RDS+B	O	Terminal for RDS power supply "L" during FM reception
40	MUTE	O	Mute output "H" for mute ON
41	PHONE	I	Input terminal of TEL interruption "H" for interruption
42	REM+B	O	Audio system power supply control terminal
43	CD PWR1	O	CD power 1 control output terminal When output is "H", power to CD mechanism is supplied.
44	NC	—	Not in use
45			
46	VOL SCK	O	Electronic volume control serial terminals
47	VOL SO		
48	NC	—	Not in use
49			
50	BEEP	O	Buzzer output (for OEM)
51	RDS DATA	I	Data input terminal from RDS decoder
52	NC	—	Not in use
53	AM SD	I	AM SD input
54	ST IND	I	FM ST indicator input terminal "L" for light up. Light off in other modes and SEEK
55	FM SD	I	FM SD input
56	RDS MUTE	O	Mute output terminal for RDS
57	RFDS INIT	I	Terminal for RDS initial setting "L" for pool memory scan "H" for PI search
58	NC	—	Not in use
59	PLL CE	O	PLL control terminal
60	RESET	I	Reset input terminal
61	RDS CLK	I	Clock input for data readout from RDS decoder
62	B/U DET	I	B/U detection terminal
63	ACC IN	I	ACC detection terminal
64	KEY INT	I	Eject key and FUNC key input
65	SCOR	I	Signal from sub code sink SO/SI output terminal of CXD 2545 Q is input.
66	BAND INT	I	BAND KEY input terminal (OEM specification)
67	NC	I	Not in use
68	Vdd	—	+5V power supply voltage terminal
69	XOUT	O	4.19 MHz terminal for ceramic
70	XIN	I	
71	IC	—	Connected to GND.
72	XT2	O	Not in use
73	INIT1	I	Market/OEM initial setting L: Market H: OEM
74	AVdd	—	+5V power supply terminal for A/D converter
75	AVrefI		
76	TEMP	I	Temperature sensor input terminal
77	SMETER	I	RDS S meter voltage detection terminal
78	KEY AD	I	EJECT/FUNC/DCP SW detection terminal 5V~4.5V : DCP OFF 4.5V~4V : DCP ON 1V~0.5V : FUNC ON 0.5V~0V : EJECT
79	REMOCON	I	REMOCON input terminal (OEM specification) 5V~0V : KEY OFF

Note: When L (market) is selected at initial setting, disregard the ports of exclusive use for OEM.

# EXPLODED VIEW



# PARTS LIST

NO.	PART NO.	DESCRIPTION	QTY
1	370-5573-00	ESCUTCHEON	1
2	382-7685-00	BUTTON (VOL)	1
3	382-7665-00	BUTTON (RELEASE)	1
4	382-7683-01	BUTTON (POWER)	1
5	382-7684-01	BUTTON (A-M)	1
6	335-4874-00	ILLUMI-PLATE	1
7	382-4074-00	BUTTON (TA/PTY)	1
8	382-7703-01	BUTTON (1/SCN)	1
9	382-7704-01	BUTTON (2/RPT)	1
10	382-7705-01	BUTTON (3/RDM)	1
11	382-7706-02	BUTTON (4)	1
12	382-7707-01	BUTTON (5/PLAY)	1
13	382-7708-01	BUTTON (6/TOP)	1
14	382-4076-02	BUTTON (BAND/EJ)	1
15	382-4077-00	BUTTON (RDS)	1
16	345-7710-00	SPONGE (L)	1
17	345-7711-00	SPONGE (R)	1
18	335-5020-00	ILLUMI PLATE R	1
19	335-5019-00	ILLUMI PLATE L	1
20	335-5018-00	REAR-CVR	1
22	716-1674-0L	P-TIGHT SCREW	6
23	331-1783-00	LCD-COVER	1
24	379-1043-41	INDICATOR	1
25	347-5234-00	FILM	1
26	347-5233-00	FILM	1
27	335-5016-00	ILLUMI PLATE	1
28	335-5017-00	LCD HOLDER	1
29	345-4441-65	LAMP CAP (E-A,AMBER)	3
29	345-2830-20	LAMP CAP (E-B,GREEN)	3
30	017-9000-00	PILOT LAMP	2
31	017-0441-00	PILOT LAMP	1
32	076-0522-00	PLUG (10P)	1
33	051-6013-00	IC	1
35	039-0601-00	SWITCH PWB	1
36	013-6002-50	SWITCH	15
37	013-3812-11	SWITCH	2
39	346-0097-00	LEATHER SHEET	1
40	291-0074-00	STICKER	1
41	370-5576-01	INNER-ESCUTCHEON	1
42	714-2004-19	MACHINE SCREW	2
43	335-4841-00	HOOK	1
44	341-1492-00	SHAFT	1
45	750-3174-00	SPRING	1
46	382-4078-00	BUTTON (P-OUT)	1

NO.	PART NO.	DESCRIPTION	QTY
47	750-3173-00	SPRING	2
48	331-0588-20	SPRING HOLDER	1
49	716-0778-00	WAVE SCREW	2
50	331-1862-00	SHIELD CASE	1
51	309-0664-20	FRONT PLATE	1
52	305-0242-20	SIDE-CVR (L)	1
53	305-0247-20	SIDE-CVR (R)	1
54	039-0600-00	MAIN PWB	1
55	074-1112-00	OUTLET SOCKET	1
56	009-9006-60	CHOKE	1
57	039-0602-00	ISO-RCA PWB	1
58	074-1115-00	OUTLET SOCKET	1
59	060-0057-56	AUTO FUSE (10A)	1
60	80-2078-AI	FM/LW/MW TUNER	1
61	092-9000-00	ANT-RECEPTACLE	1
62	307-0510-00	REAR-CVR	1
63	039-0602-00	ISO-RCA PWB	1
64	075-9004-00	JACK (RED)	1
65	075-9003-00	JACK (WHITE)	1
66	347-5216-00	INSULATOR	1
67	331-1766-00	IC-HOLDER	1
68	051-2009-00	IC (TDA8561Q)	2
69	313-1643-00	HEAT SINK	1
70	335-0833-01	LEAD HOLDER	1
71	855-8000-13	RCA PIN CORD	1
72	331-1861-00	EARTH PLATE	1
73	714-3006-81	MACHINE SCREW	1
74	347-5291-00	FILM	1
75	345-7740-00	RUBBER SHEET	1
76	345-3799-0L	RUBBER CAP	2
77	816-2376-00	FLAT CABLE	1
78	929-0065-80	CD-MECH-MODULE	1
79	347-5215-00	INSULATOR	1
80	285-1426-00	GUIDE LABEL (LASER)	1
81	285-1340-00	GUIDE LABEL (CAUTION)	1
82	303-0457-20	UPPER-CVR	1
83	731-3006-80	TAPTIGHT	13
84	286-8477-00	SETPLATE	1
85	304-0440-20	LOWER-CVR	1
86	750-2796-0L	SPRING	2
87	714-5008-41	MACHINE SCREW	2
88	940-1753A	DCP ASS'Y (E-A,AMBER)	1
	940-1754A	DCP ASS'Y (E-B,GREEN)	1

# PARTS LIST

Note) Several different parts of the same reference number are alternative parts.

One of those parts is used in the set.

## MAIN PWB

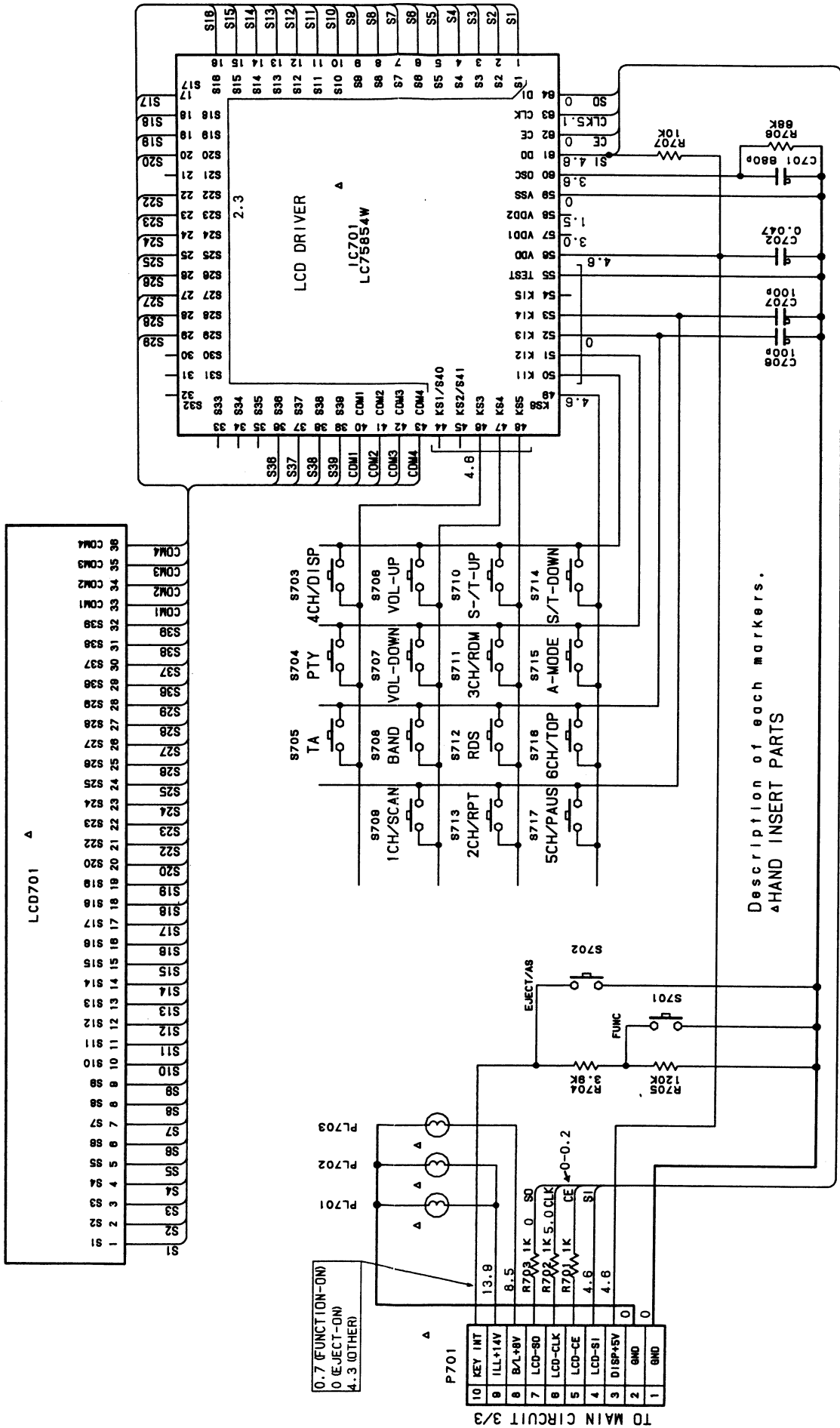
REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 1	182-4763-22	10V47uF	C 560	178-5622-05	5600pF	Q 209	125-2003-02	RN1202
C 2	182-1053-63	50V1uF	C 561	178-5622-05	5600pF	Q 501	125-0003-02	RN2202
C 3	178-1032-05	0.01uF	C 601	178-1032-05	0.01uF	Q 502	103-1504-00	2SD1504
C 4	178-2732-05	0.027uF	C 605	178-4732-05	0.047uF	Q 503	125-2003-02	RN1202
C 5	178-2732-05	0.027uF	C 609	178-4732-05	0.047uF	Q 504	103-1504-00	2SD1504
C 6	178-4732-05	0.047uF	C 610	178-1022-05	1000pF	Q 505	103-1504-00	2SD1504
C 7	178-1032-05	0.01uF	C 611	178-1032-05	0.01uF	Q 506	103-1504-00	2SD1504
C 9	176-1011-00	100pF CH	C 612	178-1022-05	1000pF	Q 601	102-2458-00	2SC2458
C 10	176-1011-00	100pF CH	C 613	178-1042-78	0.1uF	Q 602	100-1048-00	2SA1048
C 11	176-1011-00	100pF CH	C 614	178-1042-78	0.1uF	Q 603	125-0003-03	RN2203
C 12	176-1011-00	100pF CH	C 615	182-2263-33	16V22uF	Q 604	125-0003-03	RN2203
C 13	178-4722-05	4700pF	C 616	182-2263-33	16V22uF	Q 605	125-2003-03	RN1203
C 14	178-4732-05	0.047uF	C 801	178-3312-05	330pF	Q 801	125-0003-02	RN2202
C 15	182-4763-22	10V47uF	C 802	182-2253-62	50V2.2uF	Q 802	102-2458-51	2SC2458Y.GR.BL
C 16	178-1042-78	0.1uF	C 803	178-5612-05	560pF	Q 901	103-1858-00	2SD1858
C 17	178-1532-05	0.015uF	C 804	182-4763-13	6.3V47uF	Q 902	102-3420-00	2SC3420
C 18	178-6832-05	0.068uF	C 805	178-1042-78	0.1uF	Q 903	103-1858-00	2SD1858
C 19	182-2253-62	50V2.2uF	C 806	176-4701-00	47pF CH	Q 904	125-0003-02	RN2202
C 21	176-1501-00	15pF CH	C 807	176-8201-00	82pF CH	Q 905	125-0003-02	RN2202
C 22	176-1801-00	18pF CH	C 808	178-3312-05	330pF	Q 906	125-2003-02	RN1202
C 24	176-1801-00	18pF CH	C 809	178-1022-05	1000pF	R 1	117-1031-10	1/10W 10kohm
C 25	176-5096-00	5pF CH	C 901	182-1063-33	16V10uF	R 2	117-1031-10	1/10W 10kohm
C 26	178-4732-05	0.047uF	C 902	182-1063-33	16V10uF	R 3	111-1021-91	1/4WS 1kohm
C 27	176-1011-00	100pF CH	C 903	178-4732-05	0.047uF	R 4	111-1021-91	1/4WS 1kohm
C 28	178-1042-78	0.1uF	D 5	001-0330-00	1SS119	R 5	117-6821-10	1/10W 6.8kohm
C 29	176-1011-00	100pF CH	D 201	001-0466-00	S5688B	R 6	117-1231-10	1/10W 12kohm
C 101	182-2253-62	50V2.2uF	D 202	001-0330-00	1SS119	R 7	117-3931-10	1/10W 39kohm
C 102	182-2253-62	50V2.2uF	D 205	001-0330-00	1SS119	R 8	117-8231-10	1/10W 82kohm
C 103	182-2253-62	50V2.2uF	D 206	001-0503-48	HZS9C2L	R 9	117-1031-10	1/10W 10kohm
C 104	182-2253-62	50V2.2uF	D 207	001-0377-46	MA4091L	R 10	117-5631-10	1/10W 56kohm
C 105	178-2232-05	0.022uF	D 208	001-0377-32	MA4056M	R 11	117-1031-10	1/10W 10kohm
C 201	182-4763-33	16V47uF	D 209	001-0330-00	1SS119	R 12	111-1031-91	1/4WS 10kohm
C 202	184-3373-22	10V330uF	D 210	001-0188-01	1S1885A	R 13	117-1031-10	1/10W 10kohm
C 203	184-2283-32	16V2200uF	D 211	001-0330-00	1SS119	R 14	111-1021-91	1/4WS 1kohm
C 204	172-1041-11	0.1uF	D 212	001-0330-00	1SS119	R 15	117-1041-10	1/10W 100kohm
C 205	182-1063-33	16V10uF	D 213	001-0330-00	1SS119	R 16	117-4721-10	1/10W 4.7kohm
C 206	178-4732-05	0.047uF	D 501	001-0330-00	1SS119	R 17	117-1031-10	1/10W 10kohm
C 207	178-4732-05	0.047uF	D 502	001-0377-32	MA4056M	R 18	117-1031-10	1/10W 10kohm
C 208	178-1032-05	0.01uF	D 503	001-0330-00	1SS119	R 19	117-1021-10	1/10W 1kohm
C 209	178-4732-05	0.047uF	D 504	001-0377-23	MA4043M	R 20	117-2721-10	1/10W 2.7kohm
C 501	182-3343-63	50V0.33uF	D 601	001-0330-00	1SS119	R 21	111-2221-91	1/4WS 2.2kohm
C 520	182-4763-33	16V47uF	D 602	001-0330-00	1SS119	R 22	111-1021-91	1/4WS 1kohm
C 523	182-1063-33	16V10uF	D 603	001-0377-44	MA4082M	R 24	117-4741-10	1/10W 470kohm
C 524	182-4753-53	35V4.7uF	D 901	001-0377-45	MA4082H	R 25	117-1021-10	1/10W 1kohm
C 525	182-1063-33	16V10uF	D 902	001-0377-32	MA4056M	R 101	117-4721-10	1/10W 4.7kohm
C 526	182-1063-33	16V10uF	IC 1	051-6201-00	LC72146M	R 102	117-4721-10	1/10W 4.7kohm
C 527	182-1063-33	16V10uF	IC 101	051-2009-00	TDA8561Q	R 103	117-4721-10	1/10W 4.7kohm
C 528	182-1063-33	16V10uF	IC 102	051-2009-00	TDA8561Q	R 104	117-4721-10	1/10W 4.7kohm
C 529	182-1063-33	16V10uF	IC 502	051-5008-00	M62419FP	R 105	111-2231-91	1/4WS 22kohm
C 531	182-1063-33	16V10uF	IC 601	052-3325-00	uPD78058GC-116-3B9	R 201	111-1091-91	1/4WS 1ohm
C 532	182-1063-33	16V10uF	IC 602	051-0869-00	MB3771P(-G)	R 202	111-1091-91	1/4WS 1ohm
C 535	176-5601-00	56pF CH	IC 801	051-1819-00	SAA6579T	R 203	111-1091-91	1/4WS 1ohm
C 536	176-5601-00	56pF CH	L 1	010-2330-17	5.6uH	R 204	111-1091-91	1/4WS 1ohm
C 537	182-4753-53	35V4.7uF	L 2	010-2230-38	220uH	R 205	117-1031-10	1/10W 10kohm
C 538	182-4753-53	35V4.7uF	L 601	010-2330-50	0.22uH	R 206	111-1021-91	1/4WS 1kohm
C 539	176-1511-00	150pF CH	L 602	010-2330-50	0.22uH	R 207	111-1031-91	1/4WS 10kohm
C 540	176-1511-00	150pF CH	L 801	010-2230-38	220uH	R 208	111-4721-91	1/4WS 4.7kohm
C 541	182-2263-33	16V22uF	Q 1	100-1048-00	2SA1048	R 209	111-4711-91	1/4WS 470ohm
C 542	182-2263-33	16V22uF	Q 2	100-1048-00	2SA1048	R 210	117-1531-10	1/10W 15kohm
C 544	182-4763-13	6.3V47uF	Q 3	125-0003-02	RN2202	R 211	111-1021-91	1/4WS 1kohm
C 547	178-5622-05	5600pF	Q 4	103-1504-00	2SD1504	R 212	032-0108-00	1/4W 1.8ohm
C 548	178-5632-05	0.056uF	Q 5	102-2458-51	2SC2458Y.GR.BL	R 213	111-1031-91	1/4WS 10kohm
C 549	178-5632-05	0.056uF	Q 6	102-2458-51	2SC2458Y.GR.BL	R 214	111-1021-91	1/4WS 1kohm
C 550	178-5622-05	5600pF	Q 201	103-1858-00	2SD1858	R 215	117-4721-10	1/10W 4.7kohm
C 553	182-1063-33	16V10uF	Q 202	103-1858-00	2SD1858	R 216	111-2231-91	1/4WS 22kohm
C 554	182-1063-33	16V10uF	Q 203	101-1237-00	2SB1237	R 217	111-1831-91	1/4WS 18kohm
C 555	182-1073-13	6.3V100uF	Q 204	103-1858-00	2SD1858	R 505	111-3311-91	1/4WS 330ohm
C 555	182-4763-13	6.3V47uF	Q 205	103-1858-00	2SD1858	R 506	117-1031-10	1/10W 10kohm
C 556	178-8232-55	0.082uF	Q 206	103-1858-00	2SD1858	R 507	111-4721-91	1/4WS 4.7kohm
C 557	178-8232-55	0.082uF	Q 207	102-2458-00	2SC2458	R 508	111-1031-91	1/4WS 10kohm
C 558	178-2232-05	0.022uF	Q 208	101-1240-00	2SB1240	R 509	117-1031-10	1/10W 10kohm
C 559	178-2232-05	0.022uF				R 510	111-4721-91	1/4WS 4.7kohm

CIRCUIT DIAGRAM 1/3

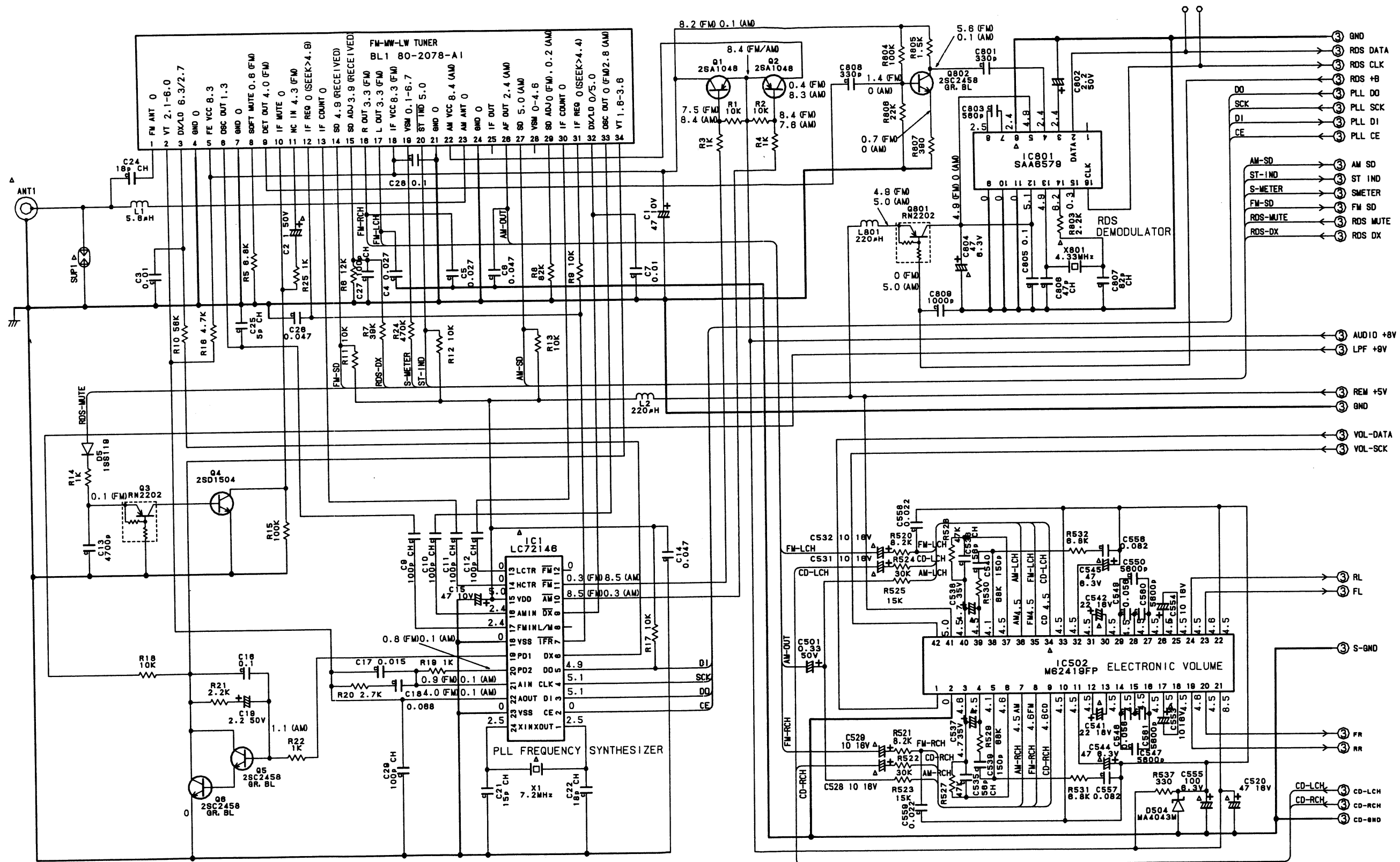
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R 511	111-3311-91	1/4WS 330ohm	R 532	117-6821-10	1/10W 6.8kohm	R 619	117-4731-10	1/10W 47kohm
R 512	111-3311-91	1/4WS 330ohm	R 537	111-3311-91	1/4WS 330ohm	R 620	117-6831-10	1/10W 68kohm
R 513	117-1031-10	1/10W 10kohm	R 601	117-1021-10	1/10W 1kohm	R 621	117-1241-10	1/10W 120kohm
R 514	111-4721-91	1/4WS 4.7kohm	R 602	117-2231-10	1/10W 22kohm	R 622	117-1041-10	1/10W 100kohm
R 515	117-1031-10	1/10W 10kohm	R 603	117-1021-10	1/10W 1kohm	R 623	117-1041-10	1/10W 100kohm
R 516	111-4721-91	1/4WS 4.7kohm	R 604	117-1041-10	1/10W 100kohm	R 803	117-2221-10	1/10W 2.2kohm
R 517	111-3311-91	1/4WS 330ohm	R 605	117-1041-10	1/10W 100kohm	R 804	111-1041-91	1/4WS 100kohm
R 518	117-1531-10	1/10W 15kohm	R 606	117-1041-10	1/10W 100kohm	R 805	111-1521-91	1/4WS 1.5kohm
R 520	117-8221-10	1/10W 8.2kohm	R 607	117-1031-10	1/10W 10kohm	R 806	117-2231-10	1/10W 22kohm
R 521	117-8221-10	1/10W 8.2kohm	R 608	117-1031-10	1/10W 10kohm	R 807	117-3911-10	1/10W 390ohm
R 522	117-3031-10	1/10W 30kohm	R 609	117-2231-10	1/10W 22kohm	R 901	111-1091-91	1/4WS 1ohm
R 523	117-1531-10	1/10W 15kohm	R 610	117-1021-10	1/10W 1kohm	R 902	111-1091-91	1/4WS 1ohm
R 524	117-3031-10	1/10W 30kohm	R 611	111-2231-91	1/4WS 22kohm	R 903	111-3311-91	1/4WS 330ohm
R 525	117-1531-10	1/10W 15kohm	R 612	117-4731-10	1/10W 47kohm	R 904	111-2211-91	1/4WS 220ohm
R 527	117-4731-10	1/10W 47kohm	R 613	117-4721-10	1/10W 4.7kohm	SUP1	060-0122-10	DSP-201M-S00B
R 528	117-4731-10	1/10W 47kohm	R 614	117-4721-10	1/10W 4.7kohm	T 201	009-9006-60	
R 529	117-6831-10	1/10W 68kohm	R 616	111-1021-91	1/4WS 1kohm	X 1	061-1066-00	7.2MHz
R 530	117-6831-10	1/10W 68kohm	R 617	111-1031-91	1/4WS 10kohm	X 601	060-0130-50	4.19MHz
R 531	117-6821-10	1/10W 6.8kohm	R 618	117-1041-10	1/10W 100kohm	X 801	061-3013-00	4.33MHz

SWITCH PWB

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 701	178-6812-05	680pF	R 706	117-6831-10	1/10W 68kohm	S 709	013-3640-02	
C 702	178-4732-05	0.047uF	R 707	117-1031-10	1/10W 10kohm	S 710	013-3640-02	
C 706	176-1011-00	100pF CH	S 701	013-3640-02		S 711	013-3640-02	
C 707	176-1011-00	100pF CH	S 702	013-3812-11		S 712	013-3640-02	
IC 701	051-6013-00	LC75854W	S 703	013-3640-02		S 713	013-3640-02	
R 701	117-1021-10	1/10W 1kohm	S 704	013-3640-02		S 714	013-3640-02	
R 702	117-1021-10	1/10W 1kohm	S 705	013-3640-02		S 715	013-3640-02	
R 703	117-1021-10	1/10W 1kohm	S 706	013-3812-11		S 716	013-3640-02	
R 704	117-3921-10	1/10W 3.9kohm	S 707	013-3640-02		S 717	013-3640-02	
R 705	117-1241-10	1/10W 120kohm	S 708	013-3640-02				



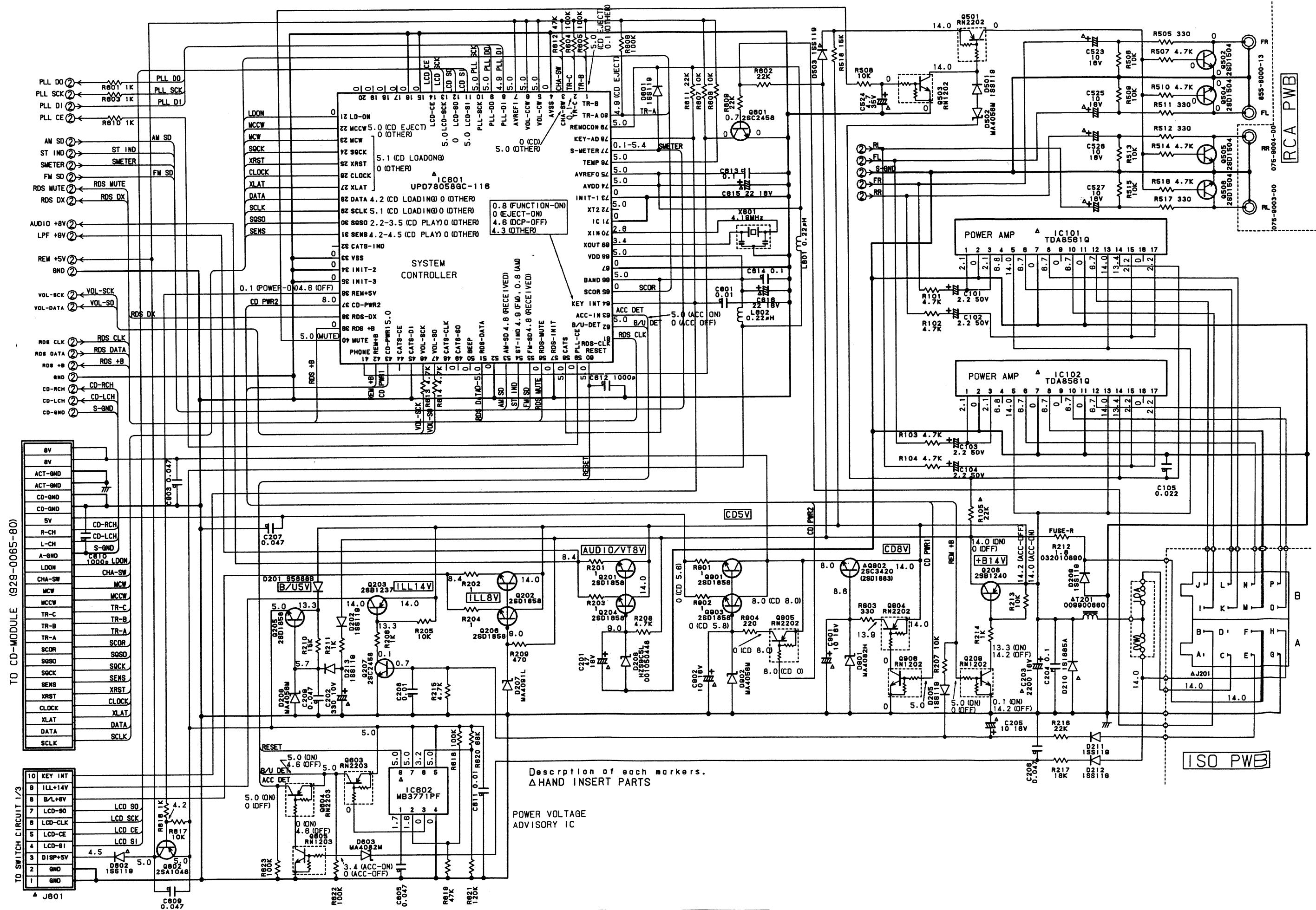
CIRCUIT DIAGRAM 2/3



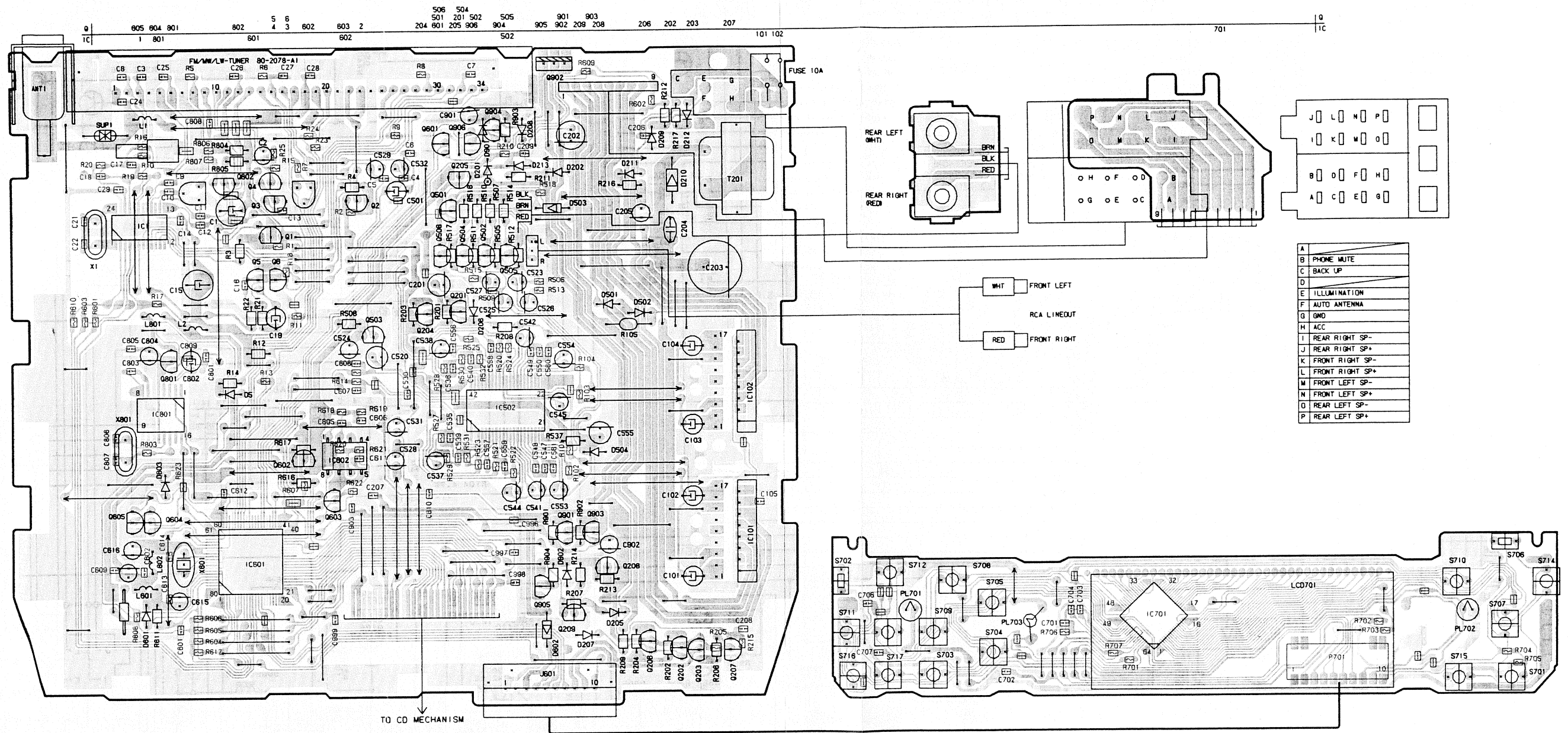
Description of each markers.  
Δ HAND INSERT PARTS



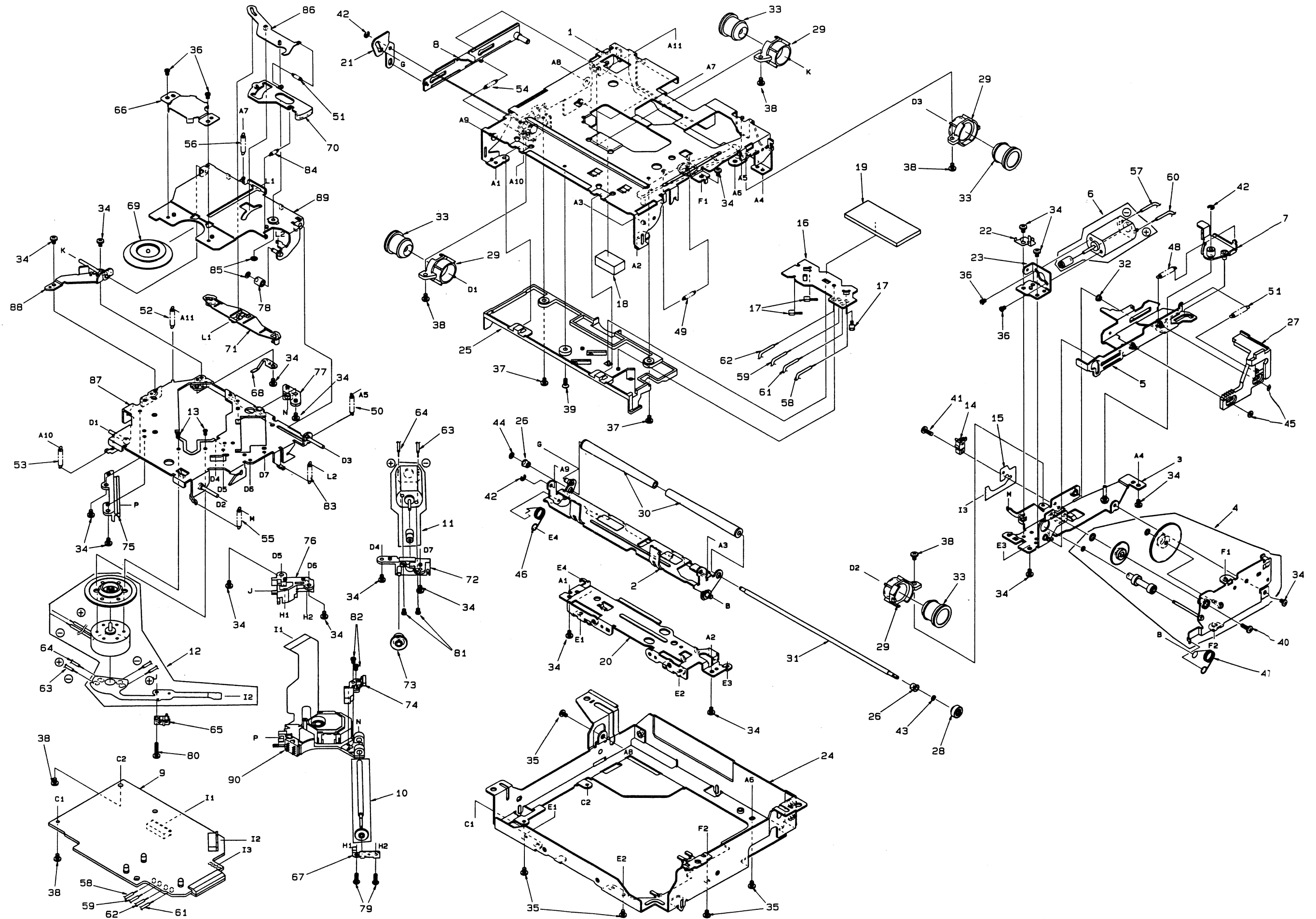
# CIRCUIT DIAGRAM 3/3



# PRINTED WIRING BOARD



**EXPLODED VIEW**  
CD mechanism section 929-0065-80(BB-CD)



## ■ PARTS LIST

CD mechanism section 929-0065-80(BB-CD)

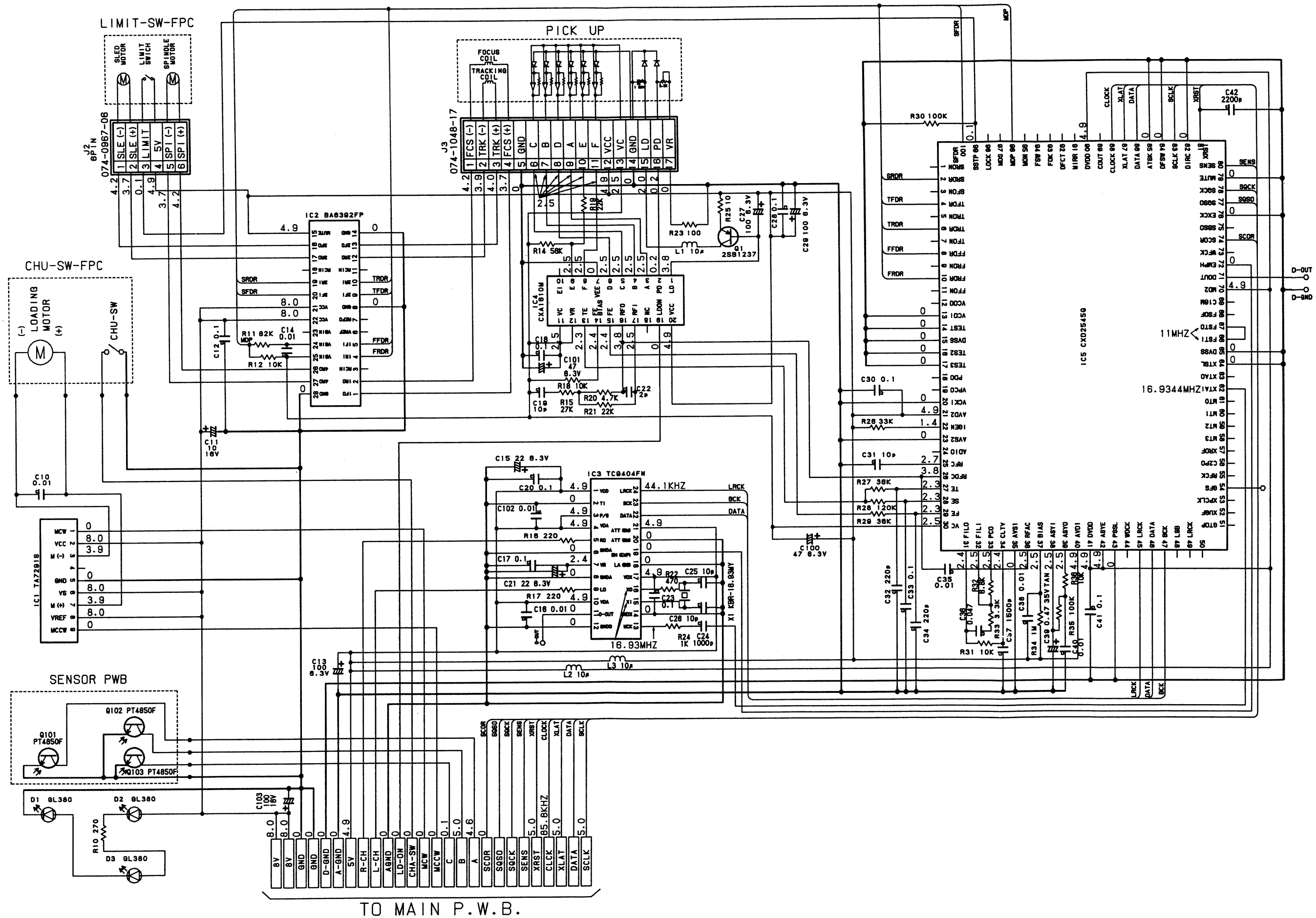
-17-

CD mechanism section 929-0065-80(BB-CD)





## ■ CIRCUIT DIAGRAM



**ELECTRICAL PARTS LIST**

CD mechanism section 929-0065-80(BB-CD)

**MECH PWB**

REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION	REF No.	PART No.	DESCRIPTION
C 10	178-1032-78	0.01uF	C 36	178-4732-78	0.047uF	R 14	117-5631-10	1/10W 56kohm
C 11	182-1063-32	16V10uF	C 37	178-1522-78	1500pF	R 15	117-2731-10	1/10W 27kohm
C 12	178-1042-78	0.1uF	C 38	178-1032-78	0.01uF	R 16	117-2211-10	1/10W 220ohm
C 13	182-1073-12	6.3V100uF	C 39	042-0230-00	35V0.47uF	R 17	117-2211-10	1/10W 220ohm
C 14	178-1032-78	0.01uF	C 40	178-1032-78	0.01uF	R 18	117-1031-10	1/10W 10kohm
C 15	182-2263-12	6.3V22uF	C 41	178-1042-78	0.1uF	R 19	117-2231-10	1/10W 22kohm
C 16	178-1032-78	0.01uF	C 42	178-2222-78	2200pF	R 20	117-4721-10	1/10W 4.7kohm
C 17	178-1042-78	0.1uF	C 100	182-4763-12	6.3V47uF	R 21	117-2231-10	1/10W 22kohm
C 18	178-1042-78	0.1uF	C 101	182-4763-12	6.3V47uF	R 22	117-4711-10	1/10W 470ohm
C 19	176-1007-00	10pF CH	C 102	178-1032-78	0.01uF	R 23	117-1011-10	1/10W 100ohm
C 20	178-1042-78	0.1uF	C 103	182-1073-32	16V100uF	R 24	117-1021-10	1/10W 1kohm
C 21	182-2263-12	6.3V22uF	D 1	001-0563-00	GL380	R 25	117-1001-10	1/10W 10ohm
C 22	176-2096-00	2pF CJ	D 2	001-0563-00	GL380	R 26	117-3331-10	1/10W 33kohm
C 23	178-1042-78	0.1uF	D 3	001-0563-00	GL380	R 27	117-3631-10	1/10W 36kohm
C 24	178-1022-78	1000pF	IC 1	051-1014-10	TA7291S	R 28	117-1241-10	1/10W 120kohm
C 25	176-1007-00	10pF CH	IC 2	051-6015-05	BA6392FP	R 29	117-3631-10	1/10W 36kohm
C 26	176-1007-00	10pF CH	IC 3	051-6314-05	TC9404FN	R 30	117-1041-10	1/10W 100kohm
C 27	182-1073-12	6.3V100uF	IC 4	051-1971-00	CXA16010M	R 31	117-1031-10	1/10W 10kohm
C 28	178-1042-78	0.1uF	IC 5	051-6313-00	CXD2545Q	R 32	117-6821-10	1/10W 6.8kohm
C 29	182-1073-12	6.3V100uF	L 1	010-2155-03	10uH	R 33	117-3321-10	1/10W 3.3kohm
C 30	178-1042-78	0.1uF	L 2	010-2155-03	10uH	R 34	117-1051-10	1/10W 1Mohm
C 31	176-1007-00	10pF CH	L 3	010-2155-03	10uH	R 35	117-1041-10	1/10W 100kohm
C 32	178-2212-78	220pF	Q 1	101-1237-00	2SB1237	R 36	117-1031-10	1/10W 10kohm
C 33	178-1042-78	0.1uF	R 10	111-2711-91	1/4WS 270ohm	X 1	060-1014-00	16.9344MHz
C 34	178-2212-78	220pF	R 11	117-8231-10	1/10W 82kohm			
C 35	178-1032-78	0.01uF	R 12	117-1031-10	1/10W 10kohm			

**SENSOR PWB**

REF No.	PART No.	DESCRIPTION
Q 101	060-0252-01	PT4850F
Q 102	060-0252-01	PT4850F
Q 103	060-0252-01	PT4850F